

AMENDMENTS TO THE CLAIMS:

Claim 1 (currently amended) A transporting and storing system used in conjunction with an immunodiagnostic instrument, comprising:

- a. a multiplicity of reagent packs, each having an elongated body with at least one well, the elongated body having thickness that is sufficient to accommodate said well and a slim profile with a middle portion, a front portion with a pointed front end, and a rear portion with a rounded rear end having two generally opposite outer sides; wherein the middle portion is wider than the front and rear portions.
- b. a gantry mounted on a rack structure and movable horizontally for carrying a gripper mechanism which is vertically movable on the gantry and horizontally moveable with the gantry, the gripper mechanism having a pair of generally oppositely disposed and synchronically movable gripping jaws each having an inner side for engagement with said outer sides of said reagent pack;
- c. a power assembly for actuating the respective movement of said gantry, said gripper mechanism and said gripping jaws;
- d. a storage nest having a multiplicity of compartments aligned in vertical columns and horizontal rows, each adapted for storing one of the respective reagent packs;

- e. a pipetting nest having a multiplicity of compartments aligned in at least one horizontal row, each adapted for retaining one of respective reagent packs for simultaneous pipetting;
- f. at least one vertical transport route between two adjacent and spaced apart columns of said compartments for allowing the vertical movement of said gripper mechanism, and at least one horizontal transport route between two adjacent and spaced apart rows of said compartments for allowing the horizontal movement of said gripper mechanism carried by said gantry, for transporting said reagent packs between said storage nest and said pipetting nest;
- g. means for positioning and positively retaining said reagent pack by said gripper mechanism, including holes with tapered conical opening on said outer sides of said reagent pack and complementary conical pins on said inner sides of said gripping jaws, for causing said reagent pack to be slightly lifted up when engaged by said gripping jaws and moved in or out of said storage compartment; and
- h. means for maintaining precise pipetting position of said reagent pack, ~~including spring loaded v-shaped members located in said pipetting compartment, for limiting the movement of said reagent pack during pipetting.~~

Claim 2 (original) The system as defined in claim 1, wherein said power assembly comprises a pneumatic power source.

Claim 3 (original) The system as defined in claim 1, wherein said at least one vertical transport route is located between two adjacent and spaced apart columns of said compartments of said storage nest.

Claim 4 (original) The system as defined in claim 1, wherein said at least one horizontal transport route is located between said at least one row of said compartments of said pipetting nest and an adjacent and spaced apart row of said compartments of said storage nest.

Claim 5 (original) The system as defined in Claim 1, wherein said means for positioning and positively retaining said reagent pack by said gripper mechanism comprises at least two holes with tapered conical opening on one of said two outer sides of said reagent pack and at least one hole with tapered conical opening on the other one of said two outer sides of said reagent pack, and further comprises at least two complementary conical pins on said inner side of a corresponding one of said pair of gripping jaws and at least one complementary conical pin on said inner side of the other one of said pair of gripping jaws.

Claim 6 (original) The system as defined in claim 1, wherein said means for positioning and positively retaining said reagent pack by said gripper mechanism comprises at least two conical pins on one of said two outer sides of said reagent pack and at least one conical pin on the other one of said two outer sides of said reagent pack, and further comprises at least two complementary holes with tapered conical opening on said inner side of a corresponding one of said pair of gripping jaws and at least one complementary hole with tapered conical opening on said inner side of the other one of said pair of gripping jaws.

Claim 7-8 (withdrawn)

Claim 9 (currently amended) A transporting and storing system used in conjunction with an immunodiagnostic instrument, comprising:

- a. a multiplicity of reagent packs;
- b. a gantry movably mounted on a rack structure for carrying a gripper mechanism, the gripper mechanism having gripping jaws for engagement with said reagent pack;
- c. a power assembly for actuating the respective movement of said gantry, said gripper mechanism and said gripping jaws;
- d. a storage nest having a multiplicity of compartments aligned in vertical columns and horizontal rows, each compartment adapted for storing a respective one of said reagent packs;
- e. a pipetting nest having a multiplicity of compartments aligned in at least one horizontal row, each compartment adapted for retaining a respective one of said reagent packs for simultaneous pipetting;
- f. at least one transport route for allowing movement of said gripper mechanism carried by said gantry for transporting said reagent packs between said storage nest and said pipetting nest;
- g. means for positioning and positively retaining said reagent pack by said gripper mechanism, including complementary features on said reagent pack and said gripping jaws, for causing said reagent pack to be slightly lifted up when engaged by said gripping jaws and moved in or out of said storage compartment; and
- h. means for maintaining precise pipetting position of said reagent pack, ~~including spring loaded members located in said pipetting compartment, for limiting the movement of said reagent pack during pipetting.~~

Claim 10 (original) The system as defined in claim 9, wherein said power assembly comprises a pneumatic power source.

Claim 11 (cancelled)

Claim 12 (currently amended) The system as defined in claim 11 9, wherein said at least one transport route comprises a vertical transport route located between two adjacent and spaced apart columns of said compartments of said storage nest.

Claim 13 (original) The system as defined in claim 12, wherein said at least one transport route further comprises a horizontal transport route located between said at least one row of said compartments of said pipetting nest and an adjacent and spaced apart row of said compartments of said storage nest.

Claim 14 (original) The system as defined in claim 9, wherein said means for positioning and positively retaining said reagent pack by said gripper mechanism comprises holes with tapered conical opening on said reagent pack and complementary conical pins on said gripping jaws, and complementary conical pins on said gripping jaws.

Claim 15 (original) The system as defined in claim 9, wherein said spring-loaded members each has a v-shaped deflectible configuration.

Claim 16-21 (withdrawn)